

1. (Currently Amended) A heating system for a vehicle, comprising:

a reformer arrangement (12) for producing hydrogen from a hydrocarbon/mixed material mixture,

a burner arrangement (14) for reception of hydrogen produced in the reformer arrangement (12) and combustion thereof, and

a heat exchanger arrangement (16) for transferring combustion heat produced in the burner arrangement (14) to a heating medium,

wherein hydrogen feeding means (14, 16; 52, 54, 58) are provided for feeding hydrogen produced in the reformer arrangement (12) to at least one further hydrogen-consuming system (46, 60), said at least one further hydrogen-consuming system (46, 60) comprising an exhaust-gas after-treatment system (46) for an internal combustion engine (44) and for a fuel cell system (60), said hydrogen feeding means (52, 54, 58) comprising hydrogen distributing means (52) for distributing hydrogen produced in the reformer arrangement (12) to the burner arrangement (14) and the at least one further hydrogen-consuming system (46, 60).

2. (Original) The heating system as claimed in claim 1, wherein a flame trap (22) is arranged between the reformer arrangement (12) and a combustion chamber (24) of the burner arrangement (14).

3. (Cancelled) ~~The heating system as claimed in claim 1, wherein hydrogen feeding means (14, 16; 52, 54, 58) are provided for feeding hydrogen produced in the reformer arrangement (12) to at least one further hydrogen-consuming system (46, 60).~~

4. (Cancelled) ~~The heating system as claimed in claim 3, wherein the at least one further hydrogen-consuming system (46, 60) comprises an exhaust-gas after-treatment system (46) for at least one of an internal combustion engine (44) and a fuel cell (60).~~
5. (Cancelled) ~~The heating system as claimed in claim 3, wherein the hydrogen-feeding means (52, 54, 58) comprise hydrogen-distributing means (52) for distributing hydrogen produced in the reformer arrangement (12) to the burner arrangement (14) and the at least one further hydrogen-consuming system (46, 60).~~
6. (Currently Amended) The heating system as claimed in claim 5 1, wherein the ratio of distribution of the hydrogen distributing means (52) can be changed.
7. (Currently Amended) The heating system as claimed in claim 3 1, wherein the hydrogen feeding means (14, 16) connect an outlet region of the burner arrangement (14) to the at least one further hydrogen-consuming system (46).
8. (New) A heating system for a vehicle, comprising:
a reformer arrangement (12) for producing hydrogen from a hydrocarbon/mixed material mixture,
a burner arrangement (14) selectively connectable to the reformer arrangement for reception of hydrogen produced in the reformer arrangement (12) and combustion thereof, and
a heat exchanger arrangement (16) for transferring combustion heat produced in the burner arrangement (14) to a heating medium, and
a fuel cell system (60), arranged for receiving hydrogen produced in the reformer arrangement (12) for generating electricity, said burner arrangement (14) and/or said heat exchanger arrangement (16) being connected or connectable to said fuel cell system (60)

for introducing exhaust gases produced in the burner arrangement (14) into the fuel cell system (60).